



MATERIAL SAFETY DATA SHEET

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Part A Foam

1. Product And Company Identification

Manufacturer

HENRY COMPANY
2270 Castle Harbor Place
Ontario, CA 91761

Company Contact: R&D Dept.
Telephone Number: 909-947-7224
Web Site: www.resintechnology.com

Manufacturer Emergency Contacts & Phone Number

CHEMTREC: 800-424-9300

Issue Date: 10/17/2006

Product Name: Part A Foam

MSDS Number: 51

Product Identification Text

Component of a Polyurethane

2. Composition/Information On Ingredients

Ingredient Name	CAS Number	Percent Of Total Weight
diphenylmethane diisocyanate (MDI) Mixed Isomers	26447-40-5	1 - 5
4-4'-diphenylmethane diisocyanate (MDI)	101-68-8	35 - 45
polymeric diphenylmethane diisocyanate (pMDI)	9016-87-9	100 - 100

EMERGENCY OVERVIEW

WARNING: Respiratory Sensitizer, Skin Sensitizer, Very Toxic, Reacts with Water

Aerosol may be fatal if inhaled. May cause severe allergic respiratory and skin reactions. Permanent sensitization can occur from either skin or respiratory contact.

Appearance/Odor: Brown liquid, musty odor

3. Hazards Identification

Primary Routes(s) Of Entry

Skin Contact, Inhalation

Eye Hazards

Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing. Prolonged contact may cause conjunctivitis.

Skin Hazards

Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove. May cause skin discolorization. Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests indicate skin contact alone may lead to an allergic respiratory reaction.

Ingestion Hazards

May cause irritation of the mouth, throat, and digestive tract. Symptoms may include abdominal pain, nausea,

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3. Hazards Identification - Continued

Ingestion Hazards - Continued

vomiting, and diarrhea.

Inhalation Hazards

Short-term inhalation exposure to isocyanates can cause respiratory and mucous membrane irritation. Symptoms include eye and nose irritation, dry or sore throat, runny nose, shortness of breath, wheezing and laryngitis. Coughing with chest pain or tightness may also occur. These symptoms may occur during exposure or may be delayed several hours. High aerosol concentrations could cause inflammation of the lung tissue (chemical pneumonitis), chemical bronchitis with severe asthma-like wheezing, severe coughing spasms and accumulation of fluid in the lungs (pulmonary edema), which could prove fatal. Symptoms of pulmonary edema may not appear until several hours after exposure and are aggravated by physical exertion. Prolonged or repeated overexposure or a single large dose may cause certain individuals to develop sensitization to diisocyanates (asthma or asthma-like symptoms). Sensitization can be permanent. Chronic overexposure may cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

4. First Aid Measures

Eye

In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin

Remove contaminated clothing and shoes. Wash clothing before reuse. Wash affected areas with soap and water. Get medical attention immediately if irritation (redness, rash, blistering) develops and persists.

Ingestion

DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious victim. Have victim rinse mouth thoroughly with water. If victim is fully conscious, give 1-2 cups of water to dilute material in stomach. Get medical attention immediately.

Inhalation

Remove the person from the contaminated area to fresh air. If breathing is difficult, give oxygen. Do not allow victim to move about unnecessarily. Symptoms of pulmonary edema or asthmatic symptoms may develop and may be immediate or delayed up to several hours. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point: >230 °F

Flash Point Method: closed cup

Lower Explosive Limit: not available

Upper Explosive Limit: not available

Fire And Explosion Hazards

This material can burn if strongly heated. Thermal decomposition (burning) may release irritating, toxic gases, vapors and fumes, and nitrogen oxides and hydrogen cyanide may be generated. Reacts vigorously with water above 50°C. Closed containers may rupture violently when heated.

Extinguishing Media

Carbon dioxide, dry chemical powder, protein foam, water spray (for large fires). Alcohol resistant foams are preferred for large fires.

Fire Fighting Instructions

Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and helmet, hood, boots, and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. If material is spilled or released and exposure likely, evacuate area and fight fire from a safe distance or a protected location.

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6. Accidental Release Measures

Evacuate non-emergency personnel. Isolate the area and prevent access. Eliminate all ignition sources. Use appropriate personal protective equipment (PPE). Ventilate area. Contain and/or absorb spill with inert material (e.g. sand, vermiculite). Avoid runoff to waterways and sewers.

For small spills, cover with earth, sand or non-reactive sorbent material. Carefully pour decontaminating solution (see below) onto spill. Let stand 10 minutes. Weight of decontaminant used should be greater than the weight of spilled material. Shovel residues into containers. Carefully add further amounts of decontaminant solution. Wash down spill area and emergency equipment with decontaminant solution. Do not get water inside containers or on spilled material.

For large spills, contact fire and emergency services. The CERCLA RQ for this material is 5000 pounds.

Decontaminant Solution: Prepare a solution of concentrated ammonium hydroxide (4-8%) and liquid detergent (2%) and water (90-94%).

7. Handling And Storage

Handling And Storage Precautions

Avoid breathing aerosols, mists and vapors. Keep containers tightly closed. Store in a cool, dry, well-ventilated area away from flammables and other non-compatible materials. Keep contents away from moisture. Inspect containers regularly for leakage or expired shelf life. Replace defective containers.

8. Exposure Controls/Personal Protection

Engineering Controls

Use with adequate ventilation. When used outdoors, stay well away from building air intakes or close the intakes to prevent product from entering building.

Eye/Face Protection

Safety glasses with side shields or goggles recommended. If there is a potential for splashing, use full face shield over safety glasses or goggles.

Skin Protection

Use with chemical-protective gloves to prevent excessive skin contact. Chemical-resistant gloves made of neoprene, nitrile rubber or butyl rubber can be used.

Respiratory Protection

The level of respiratory protection needed should be based on the evaluation of chemical exposures by a health or safety professional. If required, use a NIOSH-approved full face piece air purifying respirator with organic vapor cartridge or supplied air respirator.

Occupational Exposure Limits for individual ingredients (if available) are listed below.

Ingredient(s) - Exposure Limits

4-4'-diphenylmethane diisocyanate (MDI)
ACGIH TLV-TWA 0.005 ppm
OSHA PEL-CEILING 0.02 ppm

9. Physical And Chemical Properties

Appearance

Brown liquid

Odor

Slightly musty

Chemical Type: Mixture

Physical State: Liquid

Boiling Point: 392-406 °F 200-208 °C

Specific Gravity: 1.24 @25°C

Vapor Pressure: <0.0001mmHg@25°C

Vapor Density: 8.5

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9. Physical And Chemical Properties - Continued

pH Factor: not determined

Solubility: Insoluble. Reacts with water.

10. Stability And Reactivity

Stability: Normally stable

Hazardous Polymerization: May Occur

Conditions To Avoid (Stability)

May cause heat and pressure build-up in closed containers. Avoid moisture, heat, direct sunlight.

Incompatible Materials

Avoid contact with water, amines, alcohols, acids, bases, metal compounds, amides, phenols, mercaptans, urethanes, ureas, and surface active compounds. The reaction with water is very slow under 50°C but is accelerated at higher temperatures. Some reactions may be violent.

Hazardous Decomposition Products

By Fire and High Heat: Toxic and irritating gases, vapors or fumes of hydrogen cyanide, carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke, isocyanate, isocyanic acid may be produced. By Reaction with Water: 4,4'-Methylene dianiline may be formed.

11. Toxicological Information

Miscellaneous Toxicological Information

Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.

Ingredient(s) - Toxicological Data

4-4'-diphenylmethane diisocyanate (MDI)

oral-rat LD50: >10000 mg/kg

oral-mouse LD50: 2200 mg/kg

dermal-rabbit LD50: >10000 mg/kg

inhal-rat LC50: 369-380 mg/m³ 4-hr exposure

polymeric diphenylmethane diisocyanate (pMDI)

oral-rat LD50: >10000 mg/kg

dermal-rabbit LD50: >6200 mg/kg

rat LC50: 490 mg/m³, 4-hr exposure

12. Ecological Information

No specific information available.

13. Disposal Considerations

Dispose in accordance with applicable federal, state and local government regulations. Incineration is the preferred method.

14. Transport Information

Proper Shipping Name

Other Regulated Substances, Liquid, N.O.S. (Methylene Diphenyl Diisocyanate)

Hazard Class

9 PGIII

DOT Identification Number

NA3082

Additional Shipping Paper Description

Methylene Diphenyl Diisocyanate CERCLA RQ=5000 pounds

When in individual containers of less than the RQ, this material ships as non-regulated.

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15. Regulatory Information

SARA Hazard Classes

Acute Health Hazard
Chronic Health Hazard

SARA Section 304 Reportable Quantity: 5000

SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

Ingredient(s) - U.S. Regulatory Information

4-4'-diphenylmethane diisocyanate (MDI)
SARA Title III - Section 313 Form "R"/TRI Reportable Chemical
polymeric diphenylmethane diisocyanate (pMDI)
SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

Ingredient(s) - State Regulations

4-4'-diphenylmethane diisocyanate (MDI)
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance

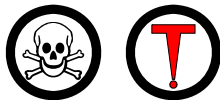
Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: D1A - Very Toxic, D2A - Very Toxic and D2B - Toxic

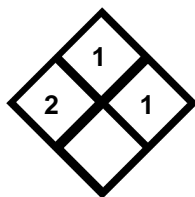
Ingredient(s) - Canadian Regulatory Information

4-4'-diphenylmethane diisocyanate (MDI)
WHMIS - Ingredient Disclosure List

WHMIS - Canada (Pictograms)



NFPA



HMIS

HEALTH	*2
FLAMMABILITY	1
REACTIVITY	1
PERSONAL PROTECTION	

16. Other Information

Revision/Preparer Information

This MSDS Supersedes A Previous MSDS Dated: 11/11/2005

Disclaimer

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